

What is Claimed is:

1. A side pivot hinge for pivotally mounting a side edge portion of a glass structure to a border frame, wherein said side pivot hinge comprises:

5 a joint body comprising two spaced apart glass holding walls defining a securing cavity therebetween for securely sandwiching said side edge portion of said glass structure between said glass holding walls;

a joint seat, having a joint sleeve, adapted for securely mounting to said border frame; and

an angular adjustment arrangement, comprising:

10 a joint housing securely mounted between said glass holding walls within said securing cavity;

a supporting shaft rotatably supported by said joint housing within said securing cavity, wherein said supporting shaft is rotatably inserted into said joint sleeve to pivotally connect said joint body with said joint seat for pivotally mounting said glass structure to said border frame; and
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an angular adjustment locker provided at an outer side of said joint body to securely lock up said supporting shaft within said joint housing in a rotatably movable manner such that when said joint body is angularly moved with respect to said joint seat for adjustably aligning said glass structure with respect to said border frame, said
20 supporting shaft is locked up at said joint housing in a rotatably movable manner via said angular adjustment locker for retaining an alignment of said glass structure in position with respect to said border frame.

2. The side pivot hinge, as recited in claim 1, wherein said supporting shaft has a central portion rotatably received in said joint sleeve of said joint seat and two end
25 portions rotatably engaged with said joint housing such that said two end portions of said supporting shaft are locked up at said joint housing via said angular adjustment locker for

retaining said alignment of said glass structure in position with respect to said border frame.

3. The side pivot hinge, as recited in claim 2, wherein said joint housing has two locking slots coaxially aligned with said joint sleeve of said joint seat at two ends thereof respectively to rotatably receive said two end portions of said supporting shaft so as to pivotally connect said joint seat with said joint body, wherein said two end portions of said supporting shaft are respectively locked up at said two locking slots via said angular adjustment locker for retaining said alignment of said glass structure in position with respect to said border frame.

4. The side pivot hinge, as recited in claim 3, wherein said angular adjustment locker comprises two locking members and has two adjustment slits longitudinally formed on said joint housing to respectively communicate with said locking slots and two locking holes transversely formed on an outer side of said joint housing through said adjustment slits respectively, wherein each of said locking members is rotatably engaged with said respective locking hole to adjustably reduce a width of said respective adjustment slit so as to lock up said end portions of said supporting shaft within said locking slots respectively.

5. The side pivot hinge, as recited in claim 2, wherein each of said end portions of said supporting shaft has a cog-like cross section to frictionally engage with an inner wall of said respective locking slot, so as to ensure said supporting shaft to lock up with said joint housing.

6. The side pivot hinge, as recited in claim 3, wherein each of said end portions of said supporting shaft has a cog-like cross section to frictionally engage with an inner wall of said respective locking slot, so as to ensure said supporting shaft to lock up with said joint housing.

7. The side pivot hinge, as recited in claim 4, wherein each of said end portions of said supporting shaft has a cog-like cross section to frictionally engage with an inner wall of said respective locking slot, so as to ensure said supporting shaft to lock up with said joint housing.

8. The side pivot hinge, as recited in claim 4, wherein one of said glass holding walls has two operation slots respectively align with said locking holes to communicate with said locking members for operating said locking members in a rotatably movable manner so as to adjustably reduce said widths of said adjustment slits through said operation slots respectively.

9. The side pivot hinge, as recited in claim 7, wherein one of said glass holding walls has two operation slots respectively align with said locking holes to communicate with said locking members for operating said locking members in a rotatably movable manner so as to adjustably reduce said widths of said adjustment slits through said operation slots respectively.

10. The side pivot hinge, as recited in claim 2, wherein said joint seat further has at least a control slot radially extended to communicate with said joint sleeve and comprises at least a driving member rotatably disposed with said control slot to bias against said central portion of said supporting shaft so as to ensure a rotational movement of said supporting shaft within said joint sleeve.

11. The side pivot hinge, as recited in claim 4, wherein said joint seat further has at least a control slot radially extended to communicate with said joint sleeve and comprises at least a driving member rotatably disposed with said control slot to bias against said central portion of said supporting shaft so as to ensure a rotational movement of said supporting shaft within said joint sleeve.

12. The side pivot hinge, as recited in claim 7, wherein said joint seat further has at least a control slot radially extended to communicate with said joint sleeve and comprises at least a driving member rotatably disposed with said control slot to bias against said central portion of said supporting shaft so as to ensure a rotational movement of said supporting shaft within said joint sleeve.

13. The side pivot hinge, as recited in claim 9, wherein said joint seat further has at least a control slot radially extended to communicate with said joint sleeve and comprises at least a driving member rotatably disposed with said control slot to bias against said central portion of said supporting shaft so as to ensure a rotational movement of said supporting shaft within said joint sleeve.

14. The side pivot hinge, as recited in claim 10, wherein said supporting shaft further has a guiding indentation longitudinally formed on said central portion, wherein said driving member is arranged to bias against said central portion of said supporting shaft at said guiding indentation for aligned retaining said glass structure with respect to
5 said border frame.

15. The side pivot hinge, as recited in claim 11, wherein said supporting shaft further has a guiding indentation longitudinally formed on said central portion, wherein said driving member is arranged to bias against said central portion of said supporting shaft at said guiding indentation for aligned retaining said glass structure with respect to
10 said border frame.

16. The side pivot hinge, as recited in claim 12, wherein said supporting shaft further has a guiding indentation longitudinally formed on said central portion, wherein said driving member is arranged to bias against said central portion of said supporting shaft at said guiding indentation for aligned retaining said glass structure with respect to
15 said border frame.

17. The side pivot hinge, as recited in claim 13, wherein said supporting shaft further has a guiding indentation longitudinally formed on said central portion, wherein said driving member is arranged to bias against said central portion of said supporting shaft at said guiding indentation for aligned retaining said glass structure with respect to
20 said border frame.

18. The side pivot hinge, as recited in claim 7, wherein each of said, having a U-shaped, defines an accessing cavity to communicate with said joint seat, wherein said joint seat, having a T-shaped, comprises a side mounting platform for securely attaching to said border frame and a joint base extended from said side mounting platform to
25 dispose within said accessing cavity, wherein said joint sleeve is transversely formed on said joint base to rotatably engage said supporting shaft so as to pivotally connect said joint seat with said joint body.

19. The side pivot hinge, as recited in claim 9, wherein each of said, having a U-shaped, defines an accessing cavity to communicate with said joint seat, wherein said
30 joint seat, having a T-shaped, comprises a side mounting platform for securely attaching to said border frame and a joint base extended from said side mounting platform to

dispose within said accessing cavity, wherein said joint sleeve is transversely formed on said joint base to rotatably engage said supporting shaft so as to pivotally connect said joint seat with said joint body.

20. The side pivot hinge, as recited in claim 17, wherein each of said, having a
- 5 U-shaped, defines an accessing cavity to communicate with said joint seat, wherein said joint seat, having a T-shaped, comprises a side mounting platform for securely attaching to said border frame and a joint base extended from said side mounting platform to dispose within said accessing cavity, wherein said joint sleeve is transversely formed on said joint base to rotatably engage said supporting shaft so as to pivotally connect said
- 10 joint seat with said joint body.